Road Services Division
2014 Collision Data Report

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INTRODUCTION

The King County Department of Transportation (KCDOT) is pleased to present the 2014 Collision Data Report. This report is prepared by the Road and Traffic Engineering unit of the Engineering Services section of the King County Road Services Division.

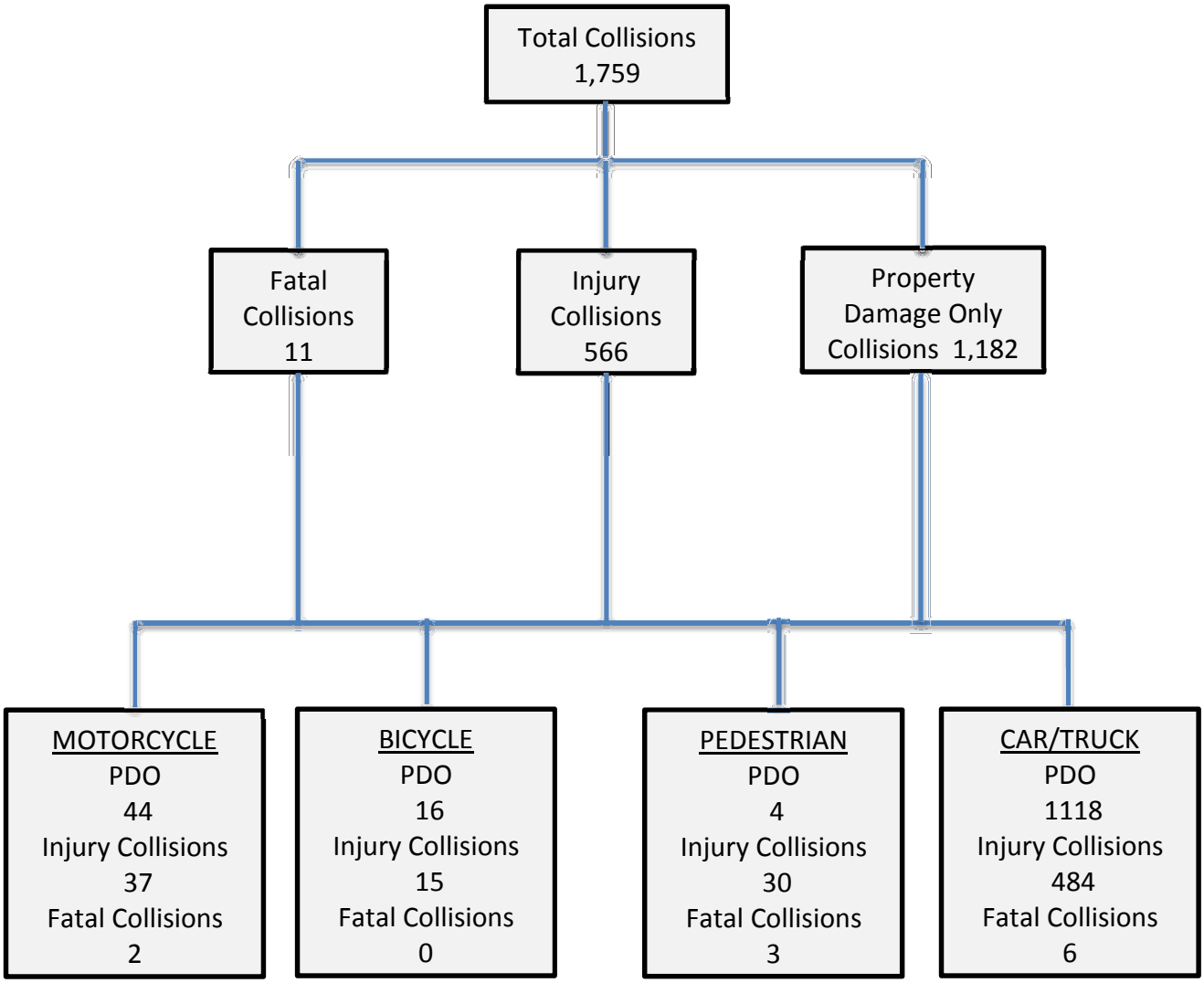
This report was prepared to provide collision and safety information to elected officials, King County staff and the public.

The collision information provided in this report comes from the Washington State Department of Transportation (WSDOT) Collision Location Access Software (CLAS) database as of July 2015. This report covers only those collisions that occurred on a county-maintained roadway within unincorporated King County and meet the reporting threshold of $1,000 in property damage or result in an injury or fatality.

Other information used in this report is courtesy of the State of Washington's Office of Financial Management, the County Road Administration Board (CRAB), the Washington State Department of Transportation, the King County Executive's Office, the Road Services Division's Engineering Services Section and Strategic Business and Operations Section.

1.0 EXECUTIVE SUMMARY

During 2014, a total of 1,759 collisions were reported on King County maintained roadways. This included 11 fatal, 566 injury and 1,182 property damage collisions. The total economic cost of these collisions is estimated at $73 million.



1.1 Six Year Trends

Since 2009, population, maintained road miles, and annual million miles traveled continue to decline. King County's unincorporated population fell from 343,000 to 252,000 (27 percent), while the number of maintained roadway miles dropped by 14 percent (from 1,743 to 1,493). The number of collisions dropped 15 percent from 2,070 to 1,759. Most of this decline is attributed to the number of annexations completed during this time period.

While the total number of collisions has slightly increased over the 2013 total (1,759 compared to 1,693), the proportion of severity has stayed relatively the same. In 2013, fatal collisions were less than 1 percent of the total, injury collisions were 33 percent and property damage only collisions amounted to 65 percent of the total. In 2014, fatal collisions were less than 1 percent, injury collisions were 32 percent of the total and property damage only collisions made up the remaining 67 percent.

Two-thirds of all 2014 collisions were either fixed object (29%), rear-end (21%) or entering an intersection at an angle (16%). Pedestrian and bicycle collisions made up three percent of all collisions. About 60 percent of all run off the road collisions hit a roadway ditch, utility pole, tree or fence. There were a total of 11 fatal collisions, resulting in 12 fatalities.

There were 16 bicycle involved collisions, compared to 23 during 2013, and 37 pedestrian-involved collisions (vs. 23 in 2013). Ninety-four percent of all bike collisions and 89% of all pedestrian collisions resulted in injuries. There were three fatalities involving pedestrians and zero fatalities involving bicyclists. Pedestrians under the age of 21 were involved in 30% of all collisions involving pedestrians.

The trend of collisions involving drivers under the influence (DUI) continue to make up between eight and nine percent of all collisions per year. During 2014, there were a total of 148 DUI involved collisions (8.4%) compared to 187 (9%) during 2009. Of the 148 collisions- three had fatalities, 62 had injuries and 82 did not involve any injuries.

Table 1.1.1
Number of Collisions
By Severity

Year	PDO*	Percentage	Injury	Percentage	Fatal	Percentage	Total
2009	1,341	64.8%	722	34.9%	7	0.3%	2,070
2010	1,131	65.1%	600	34.5%	8	0.5%	1,739
2011	954	63.5%	540	36.0%	8	0.5%	1,502
2012	1,016	64.6%	544	34.6%	12	0.8%	1,572
2013	1,118	66.0%	564	33.3%	11	0.6%	1,693
2014	1,182	67.1%	566	32.1%	11	0.6%	1,759

*Property Damage Only

1.2 Collision Rates and Road Miles

Table 1.2.1
Road Miles By
Federal Functional Classification (FFC)

Federal Functional Class (FFC) Description	FFC	Road Miles	Annual Average Daily Traffic Volume (AADT)	Annual Million Vehicle Miles Traveled (VMT)
Rural Minor Arterial	6	41	4,500	67
Rural Major Collector	7	97	2,000	71
Rural Minor Collector	8	107	1,100	43
Rural Local Access	9	386	550	78
Urban Principal Arterial	14	38	14,300	198
Urban Minor Arterial	16	74	8,400	227
Urban Collector	17	79	3,000	87
Urban Minor Collector	18	20	2,200	16
Urban Local Access	19	651	800	190
Total		**1,493**		**977**
Overall Weighted Average			**1,792**	

Note: The Federal Functional Class 19 (Urban Local Access) Average Annual Daily Traffic Volume was derived using a three year sampling of traffic count data and averaging the daily totals.

Table 1.2.2
Collision Rate per Million Vehicle Miles Traveled

Year	Total Collision Reports	Annual Average Daily Traffic Volumes (AADT)	Maintained Road Miles	Annual Million Miles Driven	Collision Rate
2009	2,070	2,274	1,743	1,447	1.43
2010	1,739	2,377	1,632	1,416	1.23
2011	1,502	1,798	1,531	1,005	1.49
2012	1,572	2,022	1,504	1,110	1.42
2013	1,693	1,764	1,492	961	1.76
2014	1,759	1,792	1,493	977	1.80

Note: The collision rates shown in this table have been adjusted to reflect the traffic counts collected in the years shown. Previous versions of this report used Annual Average Daily Traffic Volumes (AADT) which were higher than appropriate for certain roadways.

Table 1.2.3
Collision Rate per 100,000 Population

		All Collision Types		Pedestrian		Bicycle	
Year	Population	# of Collisions	Collisions per 100,000 Population	# of Collisions	Collisions per 100,000 Population	# of Collisions	Collisions per 100,000 Population
2009	343,180	2,070	603.18	29	8.45	16	4.66
2010	284,100	1,739	612.11	28	9.86	24	8.45
2011	253,565	1,502	592.35	27	10.65	29	11.44
2012	255,700	1,572	614.78	30	11.73	21	8.21
2013	253,100	1,693	668.91	23	9.09	23	9.09
2014	252,050	1,759	697.87	37	14.68	16	6.35

2.0 COLLISION TRENDS

2.1 Fatality Rates and Fatal Collision Rates

Table 2.1.1
Fatality Rate per 100,000 Population

		All Collision Types		Pedestrian		Bicycle	
Year	Population	# of Fatalities	Fatalities per 100,000 population	# of Fatalities	Fatalities per 100,000 population	# of Fatalities	Fatalities per 100,000 population
2009	343,180	7	2.04	0	0.00	0	0.00
2010	284,100	8	2.82	1	0.35	1	0.35
2011	253,565	8	3.16	1	0.39	0	0.00
2012	255,700	12	4.69	1	0.39	1	0.39
2013	253,100	12	4.74	1	0.40	1	0.40
2014	252,050	12	4.76	3	1.19	0	0.00

Table 2.1.2
Fatal Collision Rate per 100,000 Population

		All Collision Types		Pedestrian		Bicycle	
Year	Population	# of Fatal Collisions	Fatal Collisions per 100,000 Population	# of Fatal Collisions	Fatal Collisions per 100,000 Population	# of Fatal Collisions	Fatal Collisions per 100,000 Population
2009	343,180	7	2.04	0	0.00	0	0.00
2010	284,100	8	2.82	1	0.35	1	0.35
2011	253,565	8	3.16	1	0.39	0	0.00
2012	255,700	12	4.69	1	0.39	1	0.39
2013	253,100	11	4.35	1	0.40	1	0.40
2014	252,050	11	4.36	3	1.19	0	0.00

Table 2.1.3
Fatality Rate per
100 Million Vehicle Miles Traveled

Year	Number of Fatalities	Maintained Road Miles	Annual 100 Million Miles Traveled	Fatality Rate
2009	7	1,743	14.47	0.48
2010	8	1,632	14.16	0.56
2011	8	1,531	10.05	0.80
2012	12	1,504	11.10	1.08
2013	12	1,492	9.61	1.25
2014	12	1,493	9.77	1.23

Table 2.1.4
Fatal Collision Rate per
100 Million Vehicle Miles Traveled

Year	Number of Fatal Collisions	Maintained Road Miles	Annual 100 Million Miles Traveled	Fatal Collision Rate
2009	7	1,743	14.47	1.48
2010	8	1,632	14.16	0.56
2011	8	1,531	10.05	0.80
2012	12	1,504	11.10	1.08
2013	11	1,492	9.61	1.14
2014	11	1,493	9.77	1.13

2.2 US, State, and Unincorporated King County Collision, Fatal Collision and Fatality Rates

Table 2.2.1
US, State, and Unincorporated King County Collision Rates per 100,000 Population

	Unincorporated King County			Washington State			United States		
Year	Population	Collisions	Collisions per 100,000 Population	Population	Collisions	Collisions per 100,000 Population	Population	Collisions	Collisions per 100,000 Population
2009	343,180	2,070	603	6,668,200	102,859	1,543	305,529,000	5,505,000	1,802
2010	284,100	1,739	613	6,724,500	101,576	1,511	308,746,000	5,419,000	1,755
2011	253,565	1,502	592	6,801,100	98,820	1,453	311,592,000	5,338,000	1,713
2012	255,700	1,572	617	6,895,300	99,560	1,444	313,874,000	5,615,000	1,789
2013	253,100	1,693	669	6,971,400	99,689	1,430	316,219,000	5,687,000	1,798
2014	252,050	1,759	698	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

Table 2.2.2
US, State, and Unincorporated King County Fatal Collision and Fatality Rates per 100,000 Population

	Unincorporated King County			Washington State			United States		
Year	Population	Fatal Collisions per 100,000 Population	Fatalities per 100,000 Population	Population	Fatal Collisions per 100,000 Population	Fatalities per 100,000 Population	Population	Fatal Collisions per 100,000 population	Fatalities per 100,000 population
2009	343,180	2.04	2.04	6,668,200	7.34	7.96	305,529,000	10.08	11.09
2010	284,100	2.82	2.82	6,724,500	6.28	6.84	308,746,000	10.80	10.65
2011	253,565	3.16	3.16	6,801,100	6.19	6.68	311,592,000	9.55	10.39
2012	255,700	4.69	5.48	6,895,300	5.84	6.35	313,874,000	9.81	10.69
2013	253,100	4.35	4.74	6,971,400	5.81	6.31	316,219,000	9.51	10.35
2014	252,050	4.36	4.76	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

Source: Washington State Department of Transportation and the National Highway Traffic Safety Administration

Table 2.2.3
US, State, and Unincorporated King County
Collision Rates per Million Vehicle Miles Traveled (VMT)

	Unincorporated King County			Washington State			United States		
Year	Million VMT	Collisions	Collisions per Million VMT	Million VMT	Collisions	Collisions per Million VMT	Million VMT	Collisions	Collisions per Million VMT
2009	1,447	2,070	1.43	56,552	102,859	1.82	2,975,000	5,505,000	1.85
2010	1,416	1,739	1.23	57,190	101,576	1.78	2,985,000	5,419,000	1.82
2011	1,005	1,502	1.49	56,750	98,820	1.74	2,946,000	5,338,000	1.81
2012	1,110	1,572	1.42	56,600	99,560	1.76	2,954,000	5,615,000	1.90
2013	961	1,693	1.76	57,200	99,709	1.74	2,988,000	5,687,000	1.90
2014	977	1,759	1.80	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

Table 2.2.4
US, State, and Unincorporated King County Fatal Collision and Fatality Rates per 100 Million Vehicle Miles Traveled (VMT)

	Unincorporated King County			Washington State			United States		
Year	100 Million VMT	Fatal Collision Rate per 100 Million VMT	Fatality Rate per 100 Million VMT	100 Million VMT	Fatal Collision Rate per 100 Million VMT	Fatality Rate per 100 Million VMT	100 Million VMT	Fatal Collision Rate per 100 Million VMT	Fatality Rate per 100 Million VMT
2009	14.47	0.48	0.48	566	0.8	0.87	29,750	1.04	1.14
2010	14.16	0.56	0.56	572	0.74	0.80	29,850	1.02	1.11
2011	10.05	0.80	0.80	568	0.74	0.80	29,460	1.01	1.10
2012	11.10	1.08	1.08	566	0.71	0.77	29,540	1.04	1.14
2013	9.61	1.14	1.25	572	0.70	0.76	29,880	1.01	1.10
2014	9.77	1.13	1.23	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

Source: Washington State Department of Transportation and the National Highway Traffic Safety Administration

2.3 Urban versus Rural Roads - Fatal Collision and Fatality Rates

Table 2.3.1
Urban versus Rural Roads in Unincorporated King County
Fatal Collision and Fatality Rates per 100,000 Population

	Urban Roads in Unincorporated King County					Rural Roads in Unincorporated King County				
Year	Population	# of Fatal Collisions	# of Fatalities	Fatal Collisions per 100,000 Population	Fatalities per 100,000 Population	Population	# of Fatal Collisions	# of Fatalities	Fatal Collisions per 100,000 Population	Fatalities per 100,000 Population
2009	218,780	6	6	2.74	2.74	124,000	1	1	0.80	0.80
2010	160,500	5	5	3.12	3.12	123,600	3	3	2.43	2.43
2011	129,500	4	4	3.09	3.09	124,065	4	4	3.22	3.22
2012	131,400	6	6	4.57	4.57	124,300	6	8	4.83	6.44
2013	129,840	7	8	5.39	6.16	123,260	4	4	3.25	3.25
2014	126,500	7	8	5.53	6.32	125,500	4	4	3.19	3.19

Table 2.3.2
Urban versus Rural Roads in Unincorporated King County
Fatal Collision Rates per 100 Million Vehicle Miles Traveled (VMT)

	Fatal Collisions			Maintained Road Miles			Annual 100 Million VMT			Fatal Collision Rate per 100 Million VMT		
Year	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
2009	6	1	7	1,075	668	1,743	19.01	4.31	23.33	0.32	0.23	0.30
2010	5	3	8	968	664	1,632	10.98	3.18	14.16	0.46	0.94	0.56
2011	4	4	8	864	667	1,531	6.86	3.19	10.05	0.58	1.25	0.80
2012	6	6	12	840	664	1,504	7.41	3.69	11.10	0.81	1.63	1.08
2013	7	4	11	861	631	1,492	6.96	2.65	9.61	1.01	1.51	1.14
2014	7	4	11	862	631	1,493	7.18	2.59	9.77	1.00	1.51	1.13

Table 2.3.3
Urban versus Rural Roads in Unincorporated King County
Fatality Rates per 100 Million Vehicle Miles Traveled (VMT)

	Fatalities			Maintained Road Miles			Annual 100 Million VMT			Fatalities per 100 Million VMT		
Year	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
2009	6	1	7	1075	668	1,743	10.82	3.65	14.47	0.55	0.27	0.48
2010	5	3	8	968	664	1,632	10.98	3.18	14.16	0.46	0.94	0.56
2011	4	4	8	864	667	1,531	6.86	3.19	10.05	0.58	1.25	0.80
2012	6	8	14	840	644	1,504	7.41	3.69	11.10	0.81	2.17	1.08
2013	8	4	12	861	631	1,492	6.96	2.65	9.61	1.15	1.50	1.25
2014	8	4	12	862	631	1,493	7.18	2.59	9.77	1.14	1.51	1.14

Table 2.3.4
Urban versus Rural Collision Rates
Per Million Vehicle Miles Traveled (VMT)

	Number of Collisions			Maintained Road Miles			Annual Million VMT			Collisions per Million VMT		
Year	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
2009	1,657	413	2,070	1,075	668	1,743	1,082	365	1,447	1.53	1.13	1.43
2010	1,404	335	1,739	968	664	1,632	1,098	318	1,416	1.28	1.05	1.23
2011	1,136	366	1,502	864	667	1,531	686	319	1,005	1.66	1.15	1.49
2012	1,195	377	1,572	840	644	1,504	741	369	1,110	1.61	1.02	1.42
2013	1,337	356	1,693	861	631	1,492	696	265	961	1.92	1.34	1.76
2014	1,418	341	1,759	862	631	1,493	718	259	977	2.02	0.98	1.01

2.4 Collisions by Road Classification

Table 2.4.1
Collisions by King County Road Classification

Year	Principal Arterial	Minor Arterial	Collector	Local Access	Total
2009	498	473	521	578	2,070
2010	411	447	394	487	1,739
2011	335	443	350	374	1,502
2012	343	459	407	363	1,572
2013	395	504	415	379	1,693
2014	445	505	401	408	1,759

Table 2.4.2
Collisions by Federal Functional Classification

	Federal Functional Classification									
	Rural				Urban					
	Minor Arterial	Major Collector	Minor Collector	Local Access	Principal Arterial	Minor Arterial	Major Collector	Minor Collector	Local Access	
Year	6	7	8	9	14	16	17	18	19	Total
2009	76	146	114	77	498	397	261	0	501	2,070
2010	70	104	87	74	411	377	203	0	413	1,739
2011	84	116	92	74	335	359	142	0	300	1,502
2012	74	129	94	80	343	385	184	0	283	1,572
2013	82	120	103	51	395	422	186	6	328	1,693
2014	65	112	86	78	445	440	186	17	330	1,759

Note: Prior to 2013, no King County roadways had been classified as Federal Functional Classification 18.

3.0 COLLISION TYPES

3.1 Collision Type and Severity

Table 3.1.1
Collisions by Collision Type

Collision Type	2009	2010	2011	2012	2013	2014
Fixed Object	588	529	453	528	540	514
Rear - End	435	381	321	288	353	362
Entering at Angle	341	265	239	254	235	273
Left Turn	140	110	95	112	118	139
Hit Parked Car	194	154	112	117	138	146
Other	40	27	38	30	56	59
Sideswipe	77	52	53	52	89	95
Vehicle Overturned	89	61	54	41	49	39
Pedestrian	29	28	27	30	23	37
Head On	34	25	21	27	21	21
Bicycle	16	23	29	21	23	16
Right Turn	18	19	19	18	19	20
Animal	16	11	14	12	18	12
Backing	12	17	5	10	0	1
Entering Driveway	0	0	1	1	0	0
Leaving Parked Position	6	10	6	5	0	14
Non Collision	4	3	0	1	3	8
Other Object	10	15	6	6	8	3
U-Turn	21	9	9	19	0	0
Totals	**2,070**	**1,739**	**1,502**	**1,572**	**1,693**	**1,759**

Table 3.1.2
Fatal Collisions by Collision Type

Collision Type	2009	2010	2011	2012	2013	2014
Fixed object	5	2	4	4	8	0
Vehicle overturned	1	0	2	0	0	2
Head on	0	1	1	2	0	2
Pedestrian	0	1	1	1	1	3
Animal	0	0	0	0	0	0
Bicycle	0	1	0	1	1	0
Entering at angle	0	0	0	4	0	1
Left turn	0	2	0	0	0	0
Other	1	0	0	0	0	2
Rear - end	0	1	0	0	0	1
Sideswipe	0	0	0	0	1	0
Totals	**7**	**8**	**8**	**12**	**11**	**11**

Table 3.1.3
2014 Collisions by Collision Type and Severity

Collision Type	PDO	Injury	Fatal	Total	% of Total
Fixed object	355	159	0	514	29.2%
Rear - end	246	115	1	362	20.6%
Entering at angle	177	95	1	273	15.5%
Left turn	84	55	0	139	7.9%
Hit Parked Car	134	12	0	146	8.3%
Other	41	16	2	59	3.4%
Sideswipe	77	18	0	95	5.4%
Vehicle overturned	10	27	2	39	2.2%
Pedestrian	4	30	3	37	2.1%
Head on	9	10	2	21	1.2%
Bicycle	1	15	0	16	0.9%
Right Turn	14	6	0	20	1.1%
Animal	8	4	0	12	0.7%
Backing	1	0	0	1	0.1%
Leaving Parked Position	10	4	0	14	0.8%
Non-Collision	8	0	0	8	0.4%
Other Object	3	0	0	3	0.2%
Total	**1,182**	**566**	**11**	**1,759**	**100.0%**

Table 3.1.4
2014 Fixed Object Collisions
By First Object Struck and Severity

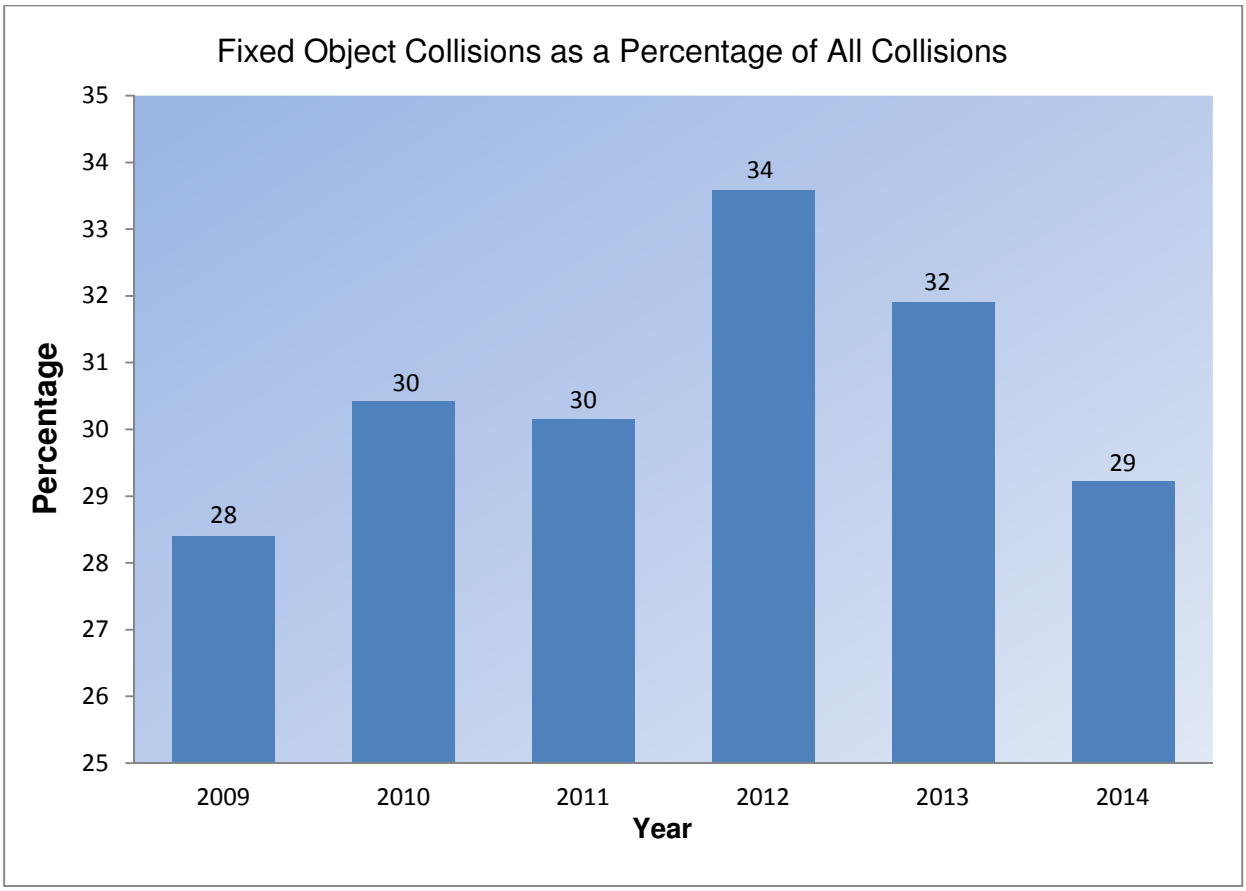
First Object Struck	PDO	Injury	Fatality	Total	% of Total
Boulder (stationary)	3	2	0	5	1.0%
Bridge Rail - Face	0	1	0	1	0.2%
Bridge Rail - Leading End	1	0	0	1	0.2%
Building	3	0	0	3	0.6%
Concrete Barrier/Jersey Barrier - Face	5	0	0	5	0.8%
Culvert and/or other Appurtenance in Ditch	4	3	0	7	1.4%
Curb, Raised Traffic Island or Raised Median Curb	4	1	0	5	0.8%
Earth Bank or Ledge	16	16	0	32	6.2%
Fallen tree hit by vehicle (on the road)	0	1	0	1	0.2%
Fence	44	9	0	53	10.3%
Fire Hydrant	3	0	0	3	0.6%
Guardrail - Face	29	8	0	37	7.2%
Guardrail - Leading End	6	4	0	10	2.0%
Guardrail - Through, Over or Under	1	1	0	2	0.4%
Into River, Lake, Swamp, etc.	3	1	0	4	0.8%
Mailbox	31	3	0	34	6.6%
Metal Sign Post	9	2	0	11	2.1%
Not Stated	1	0	0	1	0.2%
Other Objects	4	1	0	5	1.0%
Over Embankment - No Guardrail Present	12	9	0	21	4.1%
Parked Vehicle	1	0	0	1	0.2%
Parking Meter	0	1	0	1	0.2%
Retaining Wall (concrete, rock, brick, etc.)	6	2	0	9	1.8%
Roadway Ditch	51	36	0	87	16.9%
Street Light Pole or Base	7	1	0	8	1.6%
Traffic Signal Pole or Box	3	0	0	3	0.6%
Tree or Stump (stationary)	39	26	0	65	12.6%
Utility Pole or Box	46	24	0	69	13.4%
Wood Sign Post	23	7	0	31	6.0%
Total	**355**	**159**	**0**	**514**	**100.0%**

3.2 Fixed Object Collisions

Table 3.2.1
Collision Rate per Million Vehicle Miles Traveled (VMT) for
Collisions Involving Fixed Objects

	Total Number of Fixed Object Collisions			Maintained Road Miles			Annual Million VMT			Collision Rate for Fixed Object Collisions per Million VMT		
Year	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
2009	395	200	595	1,075	668	1,743	1,901	431	2,332	0.21	0.46	0.26
2010	396	167	563	968	664	1,632	1,098	318	1,416	0.36	0.53	0.4
2011	273	194	467	864	667	1,531	686	319	1,005	0.40	0.61	0.47
2012	345	197	542	840	664	1,504	741	369	1,110	0.47	0.53	0.49
2013	356	184	540	861	631	1,492	696	265	961	0.51	0.69	0.56
2014	331	183	514	862	631	1,493	718	259	977	0.47	0.70	0.53

Figure 3.2.1
Collisions Involving Fixed Objects as a
Percentage of All Collisions



3.3 Pedestrian Involved Collisions

Table 3.3.1
Pedestrian Involved Collisions by Severity

Year	Property Damage Only	Injury	Fatality	Total
2009	0	29	0	29
2010	0	27	1	28
2011	0	26	1	27
2012	1	28	1	30
2013	0	22	1	23
2014	4	30	3	37

Table 3.3.2
2014 Pedestrian Involved Collisions by
Facility Used and Severity

Facility	Property Damage Only	Injury	Fatality	Total
In Roadway	1	11	3	15
Marked X walk	3	11	0	14
Shoulder	0	4	0	4
Other	0	2	0	2
Sidewalk	0	1	0	1
Unmarked X walk	0	1	0	1
Total	**4**	**30**	**3**	**37**

Table 3.3.3
Pedestrian Involved Collisions
By First Contributing Circumstance

Contributing Circumstance	2009	2010	2011	2012	2013	2014
Disregard Flagger - Officer	0	0	0	0	0	1
Fail to Yield Row to Pedestrian	11	12	13	10	3	9
None	5	9	9	13	7	11
Other	6	6	1	2	8	5
Over Centerline	0	0	0	0	0	1
Exceeding Reasonable Safe Speed	2	0	1	0	1	0
Inattention	2	0	1	1	3	4
Operating Defective Equipment	0	0	1	1	0	1
Disregard Stop and Go Light	0	0	1	0	0	0
Driver Distractions Outside Vehicle	2	0	0	0	0	0
Driver Not Distracted	0	0	0	0	0	2
Driver Operating Handheld Telecommunication	0	0	0	1	0	0
Under Influence of Drugs	1	0	0	0	0	0
Exceeding Stated Speed Limit	0	1	0	0	0	0
Improper Turn	0	0	0	2	1	1
Unknown Driver Distraction	0	0	0	0	0	1
Under Influence of Alcohol	0	0	0	0	0	1
Total	**29**	**28**	**27**	**30**	**23**	**37**

Table 3.3.4
Age of Pedestrians Involved in Collisions

Age Range	2009	2010	2011	2012	2013	2014
Unknown	2	2	0	2	0	2
0-5	1	1	1	3	2	0
6-10	0	2	2	2	2	0
11-15	5	3	6	0	2	5
16-20	4	5	3	7	3	4
21-25	3	2	2	2	2	6
26-30	0	3	1	1	3	2
31-35	3	0	1	2	0	2
36-40	2	2	2	1	1	2
41-45	0	2	2	3	1	2
46-50	1	1	0	2	1	2
51-55	5	0	1	2	1	2
56-60	3	1	4	1	4	1
61-65	0	1	0	1	1	2
66-70	0	0	0	0	0	0
71-75	0	2	0	0	0	0
76-80	0	1	2	0	0	1
81-85	0	0	0	0	0	1
86+	0	0	0	1	0	2
Total	**29**	**28**	**27**	**30**	**23**	**37**

Table 3.3.5
Gender of Pedestrians Involved in Collisions

Year	Unknown	Female	Male	Total
2009	0	10	19	29
2010	0	10	18	28
2011	0	14	13	27
2012	0	16	14	30
2013	0	8	15	23
2014	1	14	22	37

3.4 Bicycle Involved Collisions

Table 3.4.1
Bicycle Involved Collisions by Severity

Year	Property Damage Only	Injury	Fatality	Total
2009	1	15	0	16
2010	0	22	1	23
2011	0	29	0	29
2012	2	18	1	21
2013	3	19	1	23
2014	1	15	0	16

Table 3.4.2
2014 Bicycle Involved Collisions by First Contributing Circumstance and Severity

First Contributing Circumstance	Property Damage Only	Injury	Fatality	Total
None	1	8	0	9
Inattention/Unknown Driver Distraction	0	3	0	3
Disregard Stop Sign - Flashing Red	0	3	0	3
Did Not Grant R/W to Vehicle	0	1	0	1
Total	1	15	0	16

3.5 Motorcycle Involved Collisions

Table 3.5.1
Motorcycle Involved Collisions
By Severity

Year	Property Damage Only	Injury	Fatality	Total
2009	7	58	1	66
2010	11	41	2	54
2011	4	32	2	38
2012	7	37	6	50
2013	5	38	2	45
2014	5	37	2	44

Table 3.5.2
2014 Motorcycle Involved Collisions
By First Contributing Circumstance

First Contributing Circumstance	PDO	Injury	Fatality	Total
Exceeding Stated Speed Limit / Reasonable Safe Speed	4	9	0	13
None	0	8	0	8
Other	1	6	1	8
Inattention / Driver Distraction	0	5	0	5
Did Not Grant R/W to Vehicle (No motorcycles were at fault)	0	3	1	4
Improper Turn/U-Turn	0	2	0	2
Under the Influence of Drugs or Alcohol	0	2	0	2
Over Centerline	0	1	0	1
Operating Defective Equipment	0	1	0	1
Total	**5**	**37**	**2**	**44**

4.0 OTHER COLLISION INFORMATION

4.1 Estimated Economic Costs

Table 4.1.1
Estimated Economic Costs of Collision Activity

Severity	2014 Collisions	Estimated Economic Costs
Property Damage Only	1,182	$10,992,600
Injury	566	$45,676,200
Fatal	11	$16,500,000
Total	1,759	$73,168,800

The following estimated costs per accident are used in this calculation:
Property Damage Only-$9,300; Injury-$80,700; Fatality-$1,500,000
(National Safety Council, 2013)

4.2 Month, Day of Week, and Time of Day

Figure 4.2.1
2014 Collisions by Month

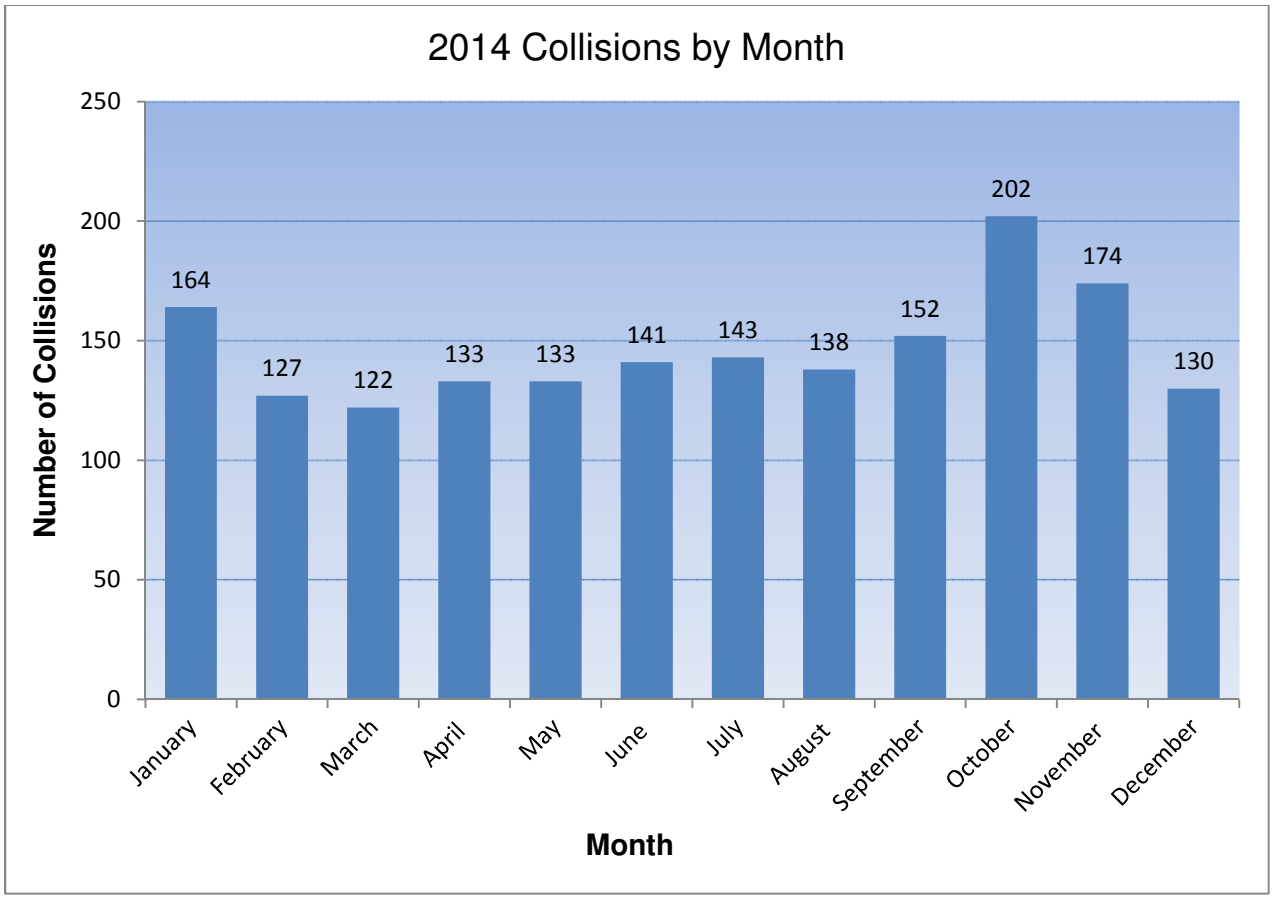


Figure 4.2.2
2014 Collisions by Day of Week

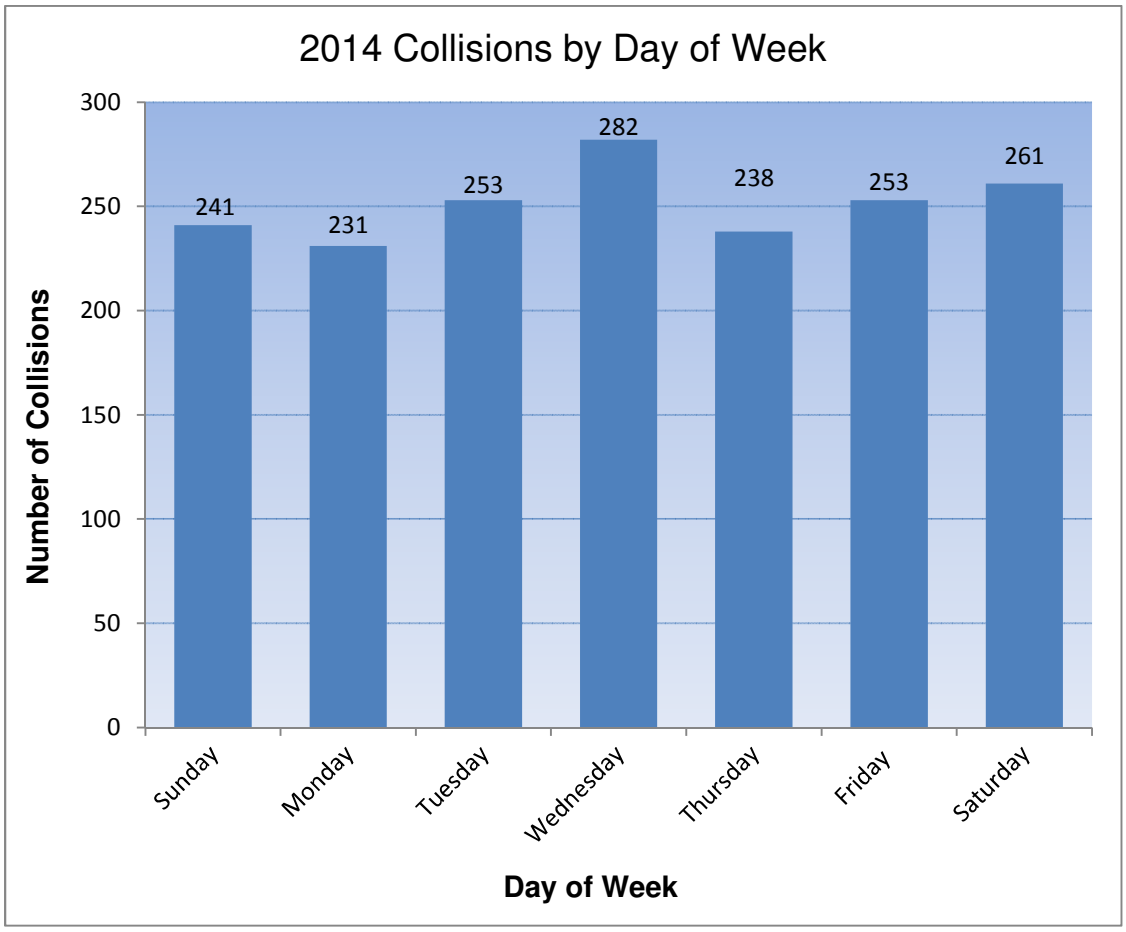


Figure 4.2.3
2014 Weekday Collisions
By Time of Day

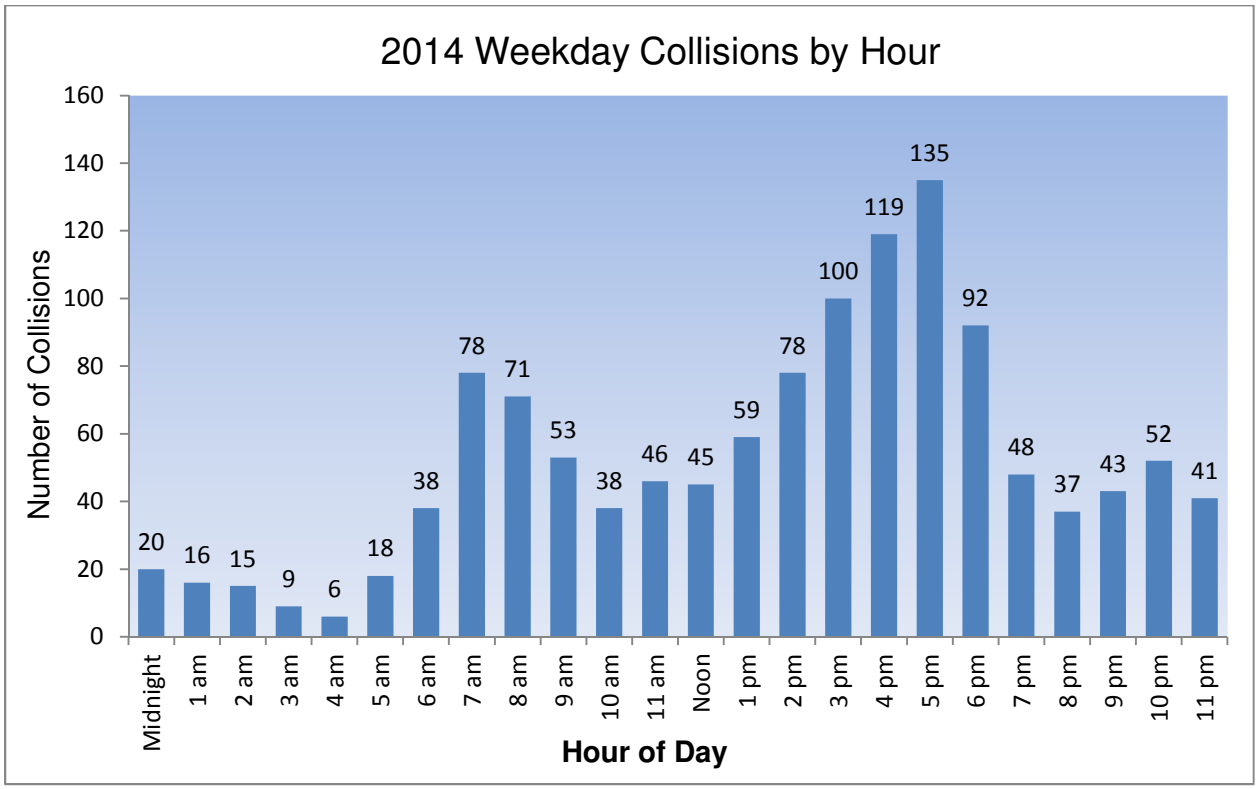
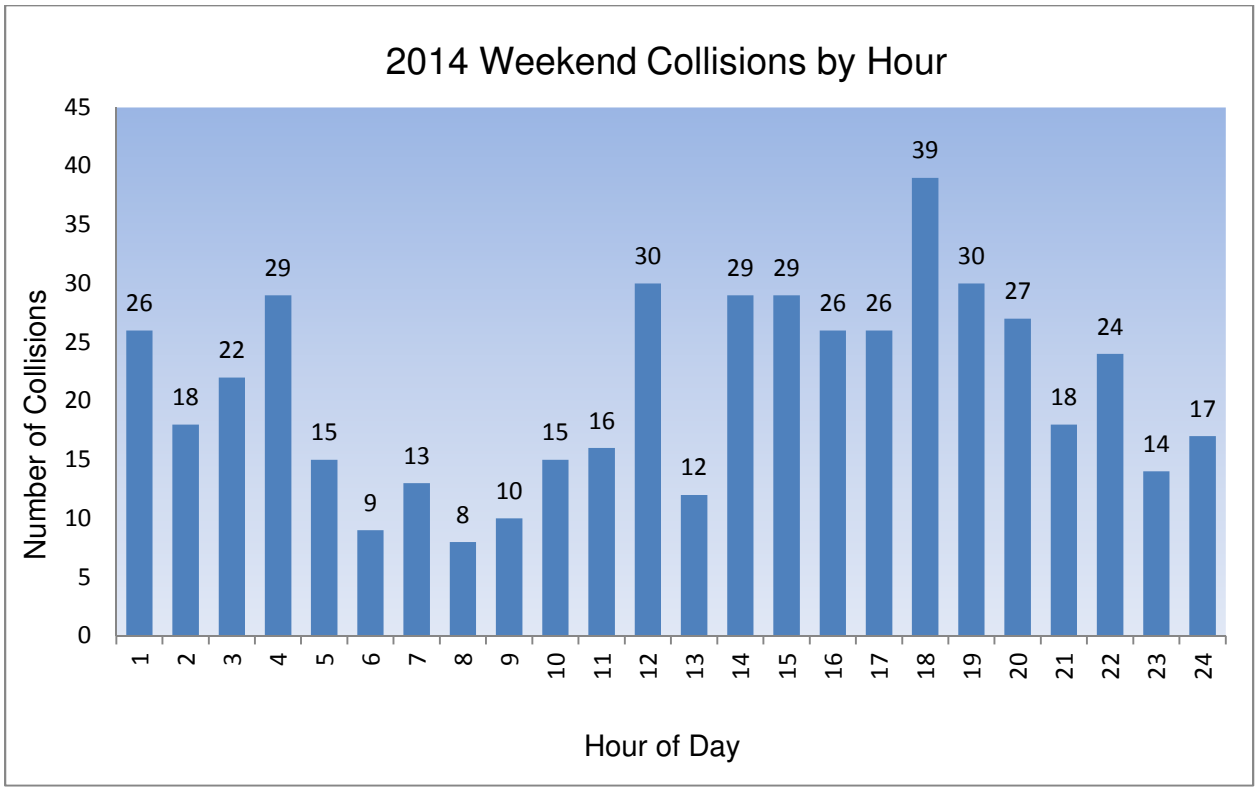


Figure 4.2.4
2014 Weekend Collisions
By Time of Day



4.3 Weather Conditions

Table 4.3.1
Fatal Collisions by Weather Condition

Year	Clear or Partly Cloudy	Fog or Smog or Smoke	Overcast	Raining	Unknown	Total
2009	2	0	4	0	1	7
2010	5	0	2	1	0	8
2011	5	1	2	0	0	8
2012	9	0	2	1	0	12
2013	8	0	3	0	0	11
2014	4	0	5	2	0	11

Table 4.3.2
Injury Collisions by Weather Condition

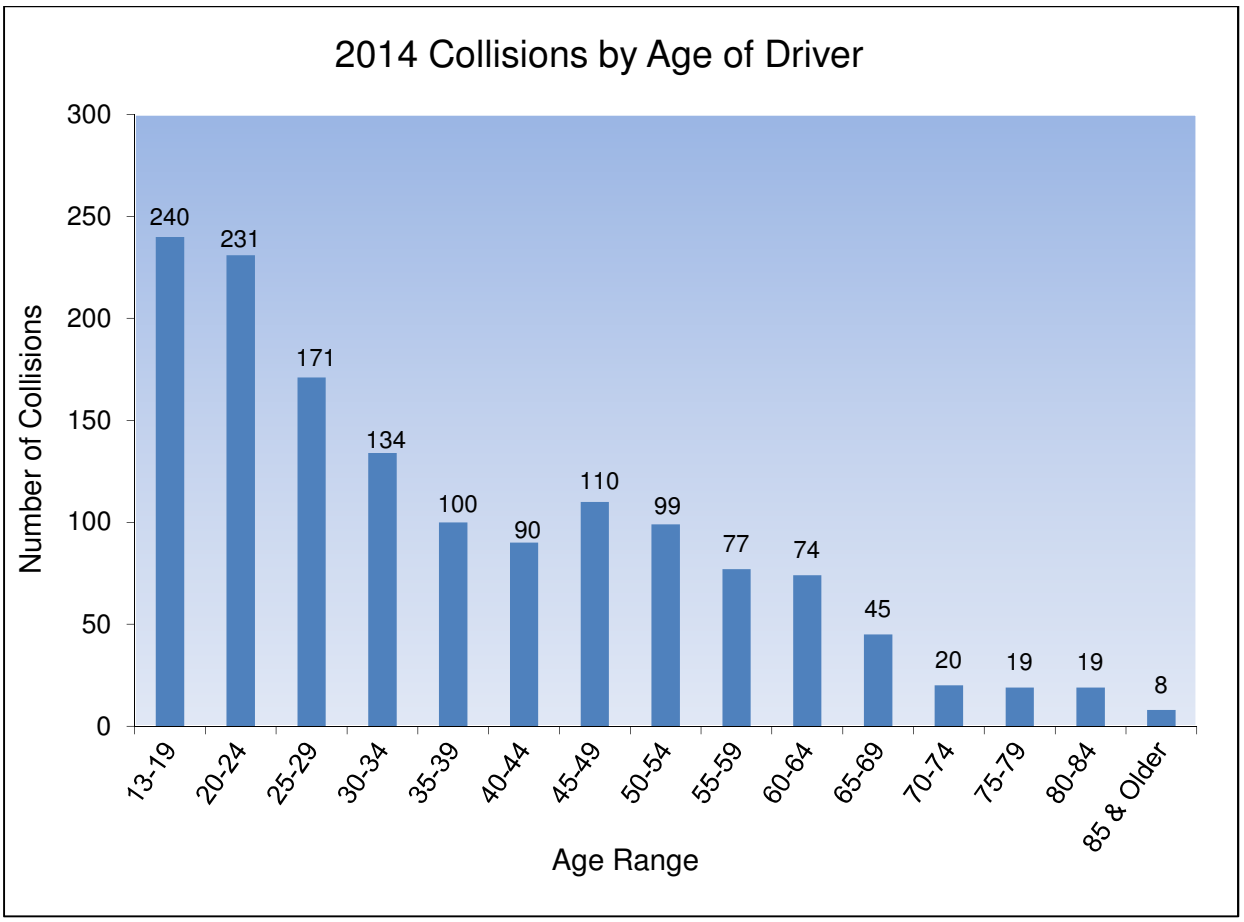
Year	Blowing Sand or Dirt or Snow	Clear or Partly Cloudy	Fog or Smog or Smoke	Other	Overcast	Raining	Severe Crosswind	Sleet, Hail or Freezing Rain	Snowing	Unknown	Total
2009	0	470	11	1	103	117	0	4	12	4	722
2010	1	344	6	0	85	151	1	0	6	6	600
2011	0	340	1	1	93	97	1	1	2	5	540
2012	0	308	4	3	94	125	0	0	7	3	544
2013	0	333	10	0	99	112	1	3	7	4	564
2014	0	362	9	2	72	112	1	0	1	7	566

Table 4.3.3
Property Damage Only Collisions by Weather Condition

Year	Blowing Sand or Dirt or Snow	Clear or Partly Cloudy	Fog or Smog or Smoke	Other	Overcast	Raining	Severe Crosswind	Sleet, Hail or Freezing Rain	Snowing	Unknown	Total
2009	0	800	32	2	189	253	1	5	29	30	1341
2010	0	604	7	5	182	286	0	1	23	23	1131
2011	0	508	4	0	199	207	0	4	12	20	954
2012	0	512	5	4	189	243	0	4	21	38	1016
2013	1	661	40	6	153	215	0	4	5	33	1118
2014	0	706	21	1	143	252	3	3	15	38	1,182

4.4 Demographics

Figure 4.4.1
2014 Collisions by Age of Driver



Note: 322 collision reports did not disclose driver age information

4.5 Contributing Circumstances

Table 4.5.1
First Contributing Circumstance
For Drivers between ages 16 to 25 for 2014

First Contributing Circumstance	Age 16	Age 17	Age 18	Age 19	Age 20	Age 21	Age 22	Age 23	Age 24	Age 25	Total
Inattention/Driver Distracted	8	18	17	11	18	9	24	10	8	14	137
Excessive Speed	15	22	12	11	10	3	15	3	3	7	101
Did Not Grant RW to Vehicle	5	9	5	6	3	2	5	6	4	3	48
Other	5	7	6	3	3	4	5	4	3	5	45
None	3	5	6	9	5	4	1	3	5	2	43
Follow Too Closely	3	6	5	5	5	4	5	3	2	1	39
Under Influence of Alcohol/Drugs	2	2	1	3	2	3	6	6	2	4	31
Apparently Asleep/Fatigued/Ill	0	3	2	1	4	4	2	2	2	4	24
Over Center Line	1	1	1	0	0	1	1	0	1	5	11
Disregard Stop/Go Light/Stop Sign/Flashing Red	1	1	0	3	2	0	2	1	0	0	10
Driver Not Distracted	0	0	1	2	0	0	2	0	1	2	8
Improper Turn	1	3	0	1	0	2	0	0	0	0	7
Operating Defective Equipment	0	2	0	1	1	1	2	0	0	0	7
Improper Passing	0	0	1	0	0	0	1	0	0	1	3
Fail to Yield Row to Pedestrian	0	0	1	0	0	0	0	0	0	0	1
Improper Backing	0	0	0	0	0	0	0	0	1	0	1
Improper U-Turn	1	0	0	0	0	0	0	0	0	0	1
Total	45	79	58	56	53	37	71	38	32	48	517

Table 4.5.2
2014 Collisions by First Contributing Circumstance

First Contributing Circumstance	Fatality	Injury	PDO	Total
Inattention/Driver Distracted	2	124	322	448
Other	3	63	207	273
Excessive Speed	2	85	130	217
Did Not Grant RW to Vehicle	1	75	131	207
None	1	55	87	143
Under Influence of Alcohol/Drugs	1	42	58	101
Follow Too Closely	0	20	69	89
Apparently Asleep/Fatigued/Ill	0	18	33	51
Over Center Line	1	15	23	39
Improper Turn	0	15	22	37
Disregard Stop/Go Light/Stop Sign/Flashing Red	0	18	15	33
Not Stated	0	5	18	23
Improper Backing	0	2	18	20
Operating Defective Equipment	0	6	13	19
Driver Not Distracted	0	9	9	18
Improper Passing	0	0	16	16
Fail to Yield Row to Pedestrian	0	9	2	11
Improper U-Turn	0	3	7	10
Disregard Flagger - Officer	0	0	1	1
Headlight Violation	0	1	0	1
Improper Parking Location	0	1	0	1
Improper Signal	0	0	1	1
Total	11	566	1182	1759

4.6 Impairment

Table 4.6.1
Collisions Involving
Drivers under the Influence (DUI)

Year	Fatal	% of all Fatalities	Injury	% of All Injury	Property Damage Only	% of all PDO	Total DUI Collisions	% of all Collisions
2009	3	42.9%	73	10.1%	111	8.3%	187	9.0%
2010	2	25.0%	76	12.7%	95	8.4%	173	9.9%
2011	3	37.5%	76	14.1%	68	7.1%	147	9.8%
2012	8	66.7%	71	13.1%	77	7.6%	156	9.9%
2013	2	16.7%	65	11.5%	81	7.2%	148	8.7%
2014	3	27.3%	62	11.0%	82	6.9%	148	8.4%

Figure 4.6.2
2014 Weekend Collisions for
Drivers under the Influence
By Time of Day

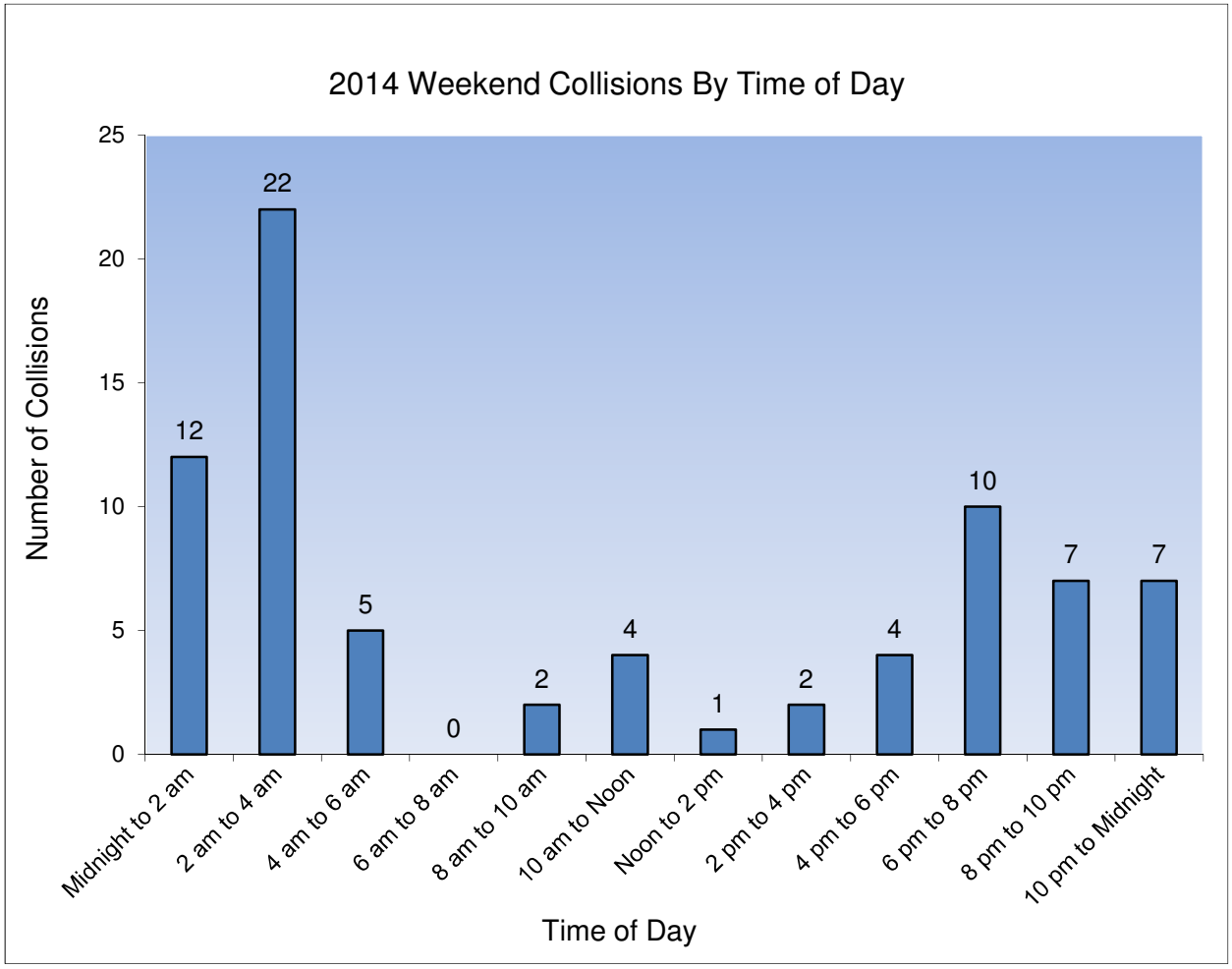
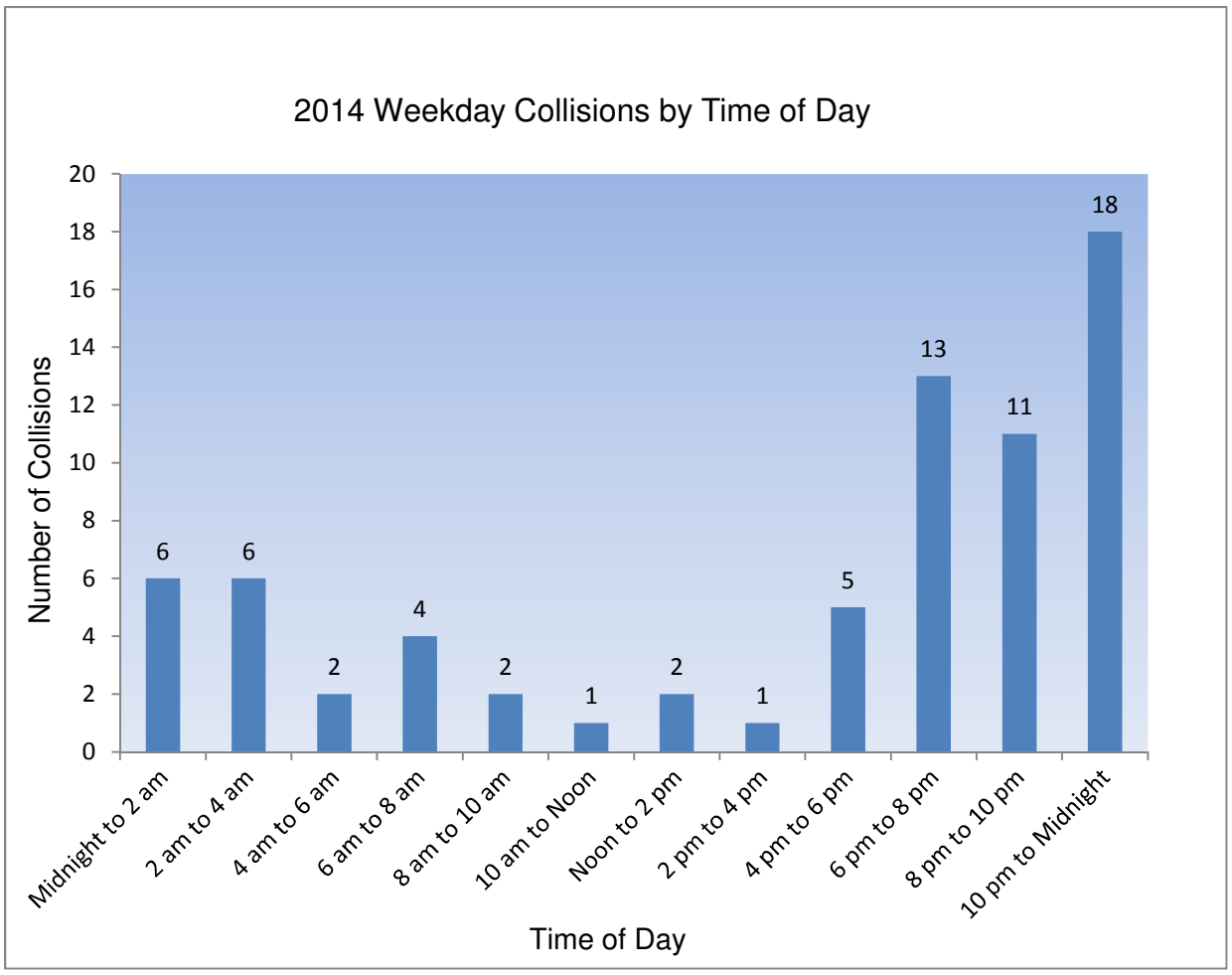


Figure 4.6.3
2014 Weekday Collisions for
Drivers under the Influence
By Time of Day



4.7 Speed

Table 4.7.1
Collisions involving Speeding as First Contributing Circumstance

Year	Fatal	% of all Fatal Collisions	Injury	% of all Injury Collisions	PDO	% of all Property Damage Only Collisions	Total	% of 2014 Collisions
2009	4	25%	225	31%	339	25%	568	27%
2010	2	25%	167	28%	303	27%	472	27%
2011	5	62%	127	24%	221	23%	353	24%
2012	4	33%	120	22%	201	20%	325	20%
2013	4	36%	86	15%	152	14%	242	14%
2014	2	18%	85	15%	130	11%	217	12%

4.8 Lighting Conditions

Table 4.8.1
2014 Collisions By
Lighting Condition

Lighting Condition	Property Damage Only	Injury	Fatal	Total
Dark-No Street Lights	176	75	2	253
Dark-Street Lights Off	16	8	0	24
Dark-Street Lights On	238	98	5	341
Dawn	18	11	0	29
Daylight	656	351	4	1,011
Dusk	41	20	0	61
Not Stated	37	3	0	40
Totals	1,182	566	11	1,759

APPENDIXES

Appendix A – Data Sources

Collision Data

Collision information is from the Washington State Department of Transportation's (WSDOT) Collision Data and Analysis Branch. The Collision Data and Analysis Branch is responsible for updating and maintaining all electronic collision records in Washington State. Vehicular collisions which sustain more than $1000 in property damage, or involve an injury or a death are required to be reported to the Washington State Patrol by a Police Traffic Collision Report. The Washington State Patrol provides hard copies of the Police Traffic Collision Report to WSDOT, where they are converted into an electronic format.

Injuries are classified based on conditions that are present at the time of the collision except in the case of fatalities. An injury resulting in a death, within 30 days of the collision, is classified as a fatal injury.

Population Data and King County Land Area

King County's population figure is from the Washington State Office of Financial Management. King County's land area figure is from King County's Office of Policy and Regional Planning.

King County Maintained Roadway Figures

King County's maintained roadway mile figures are from King County Road Service's Strategic Business and Operations Section (SBOS).

Traffic Count Data

The traffic count information used in this report was provided by King County's Road and Traffic Engineering Unit.

Estimated Cost of Collisions

The economic costs of collision values used in this report are from the National Safety Council.

Appendix B - Formulas used in Report

Collision Rate per Million Vehicle Miles Traveled

R= (Collisions*10^6) / (AADT*365*L), where

Rate = Accident rate for collisions per million vehicle mile (acc/mvm)
Collisions= Total number of collisions in one year period
AADT = Annual Average Daily Traffic volume, and
L = Length of study section in miles

Collision Rate per 100,000 Population

Rate = Collisions*100,000/Unincorporated Population
Collisions = Total number of collisions in a one year period

Economic Cost of Collisions

The economic cost of collisions was calculated as follows:
Cost = $9,300*PDO + $80,700*I + $1,500.000*F, where

PDO – Total Number of Property Damage Collisions ($9, 300/collision)
I – Total Number of Injury Collisions ($80,700/collision)
F – Total Number of Fatal Collisions ($1,500,000/collision)